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PATENT APPLICATION
AUGUST 27, 2001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Withers et al. Examiner: Slobodyanski, E.
Serial No.: 09/837,711 Art Unit: 1652
Filing Date: April 17, 2001 Conf. No.: 1131
Title: *Methods and Compositions for the Synthesis of Oligosaccharides
Using Mutant Glycosidase Enzymes*

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RESPONSE TO OFFICE ACTION

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Responsive to the Office Action mailed July 27, 2001 for the above-referenced application, please make the following amendments:

In the claims:

Please cancel claims 1-39 and add new claims 40-70 as follows:

40. (new) A method for synthesizing an oligosaccharide comprising the steps of:
- (a) combining a glycosyl donor molecule and a glycoside acceptor molecule in a reaction mixture; and
 - (b) enzymatically coupling the donor molecule to the acceptor molecule using a mutant form of glycosidase enzyme to form the oligosaccharide, said enzyme being selected from among glycosidase enzymes having two catalytically active amino acids with carboxylic acid side chains within the active site of the wild-type enzyme, and said mutant enzyme being mutated to replace one of said amino acids having a carboxylic acid side chain with a different amino acid of comparable or smaller size, said different amino acid having a non-carboxylic acid

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[Signature]